

Business Cycles and the Sense of Time in Medieval Genoa

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¶ *A great deal has been written about the perception of time before the invention of mechanical timepieces, but the nature of the evidence has led much of this literature to take on an impressionistic, even metaphysical, cast. In the following article, Professor Epstein uses specific data gleaned from the cartularies of thirteenth-century Genoese notaries to investigate more concretely the uses of time and the structure of the business day in Genoa. He concludes that, in this early center of Western commercial activity at least, an impulse toward greater precision in marking the time of day preceded the arrival of the clock.*

In the 1980s, records of even the smallest business transactions, from cash register to automatic teller machine receipts, are imprinted with the hour of the day—often, indeed, with the specific minute. According to students of communication such as Walter Ong, the electronic age, with its digital and atomic clocks, has clouded our ability to understand time in other cultural contexts.¹ Philosophers legitimately wonder about the language and methods historians use to study time; historians of literature suggest that their own subject material best preserves past impressions of time. Other historians, principally Jacques Le Goff and Carlo Cipolla, have looked at the perception of time in the Middle Ages and at the effects of the invention and use of mechanical clocks on business life and mental attitudes about the world and work.² Modern historians have concentrated on time, the factory system, and timepieces as archetypical industrial products.³

A set of unique circumstances in medieval Genoa offers the opportunity to tie these disparate ideas and approaches together in a useful way. Some writers who have stressed the dramatic effects of clocks on society have exaggerated those effects by failing to examine the importance

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¹ Walter Ong, *Orality and Literacy: The Technologizing of the Word* (London, 1982), 90–91.

² Jacques Le Goff, "Au Moyen Age, temps de l'église et temps du marchand," *Annales: Economies, sociétés, civilisations* 15 (1960): 43–52, and "Le temps du travail du le 'crise' du XIV^e siècle: du temps medieval au temps modern," *Le Moyen Age* 69 (1963): 29–42; both are reprinted in his *Time, Work, and Culture in the Middle Ages* (Chicago, 1980). See also Carlo Cipolla, *Clocks and Culture, 1300–1700* (New York, 1967).

³ Among many works, see E. P. Thompson, "Time, Work-Discipline, and Industrial Capitalism," *Past and Present* 38 (Dec. 1967): 56–97, and David S. Landes, *Revolution in Time: Clocks and the Making of the Modern World* (Cambridge, Mass., 1983).

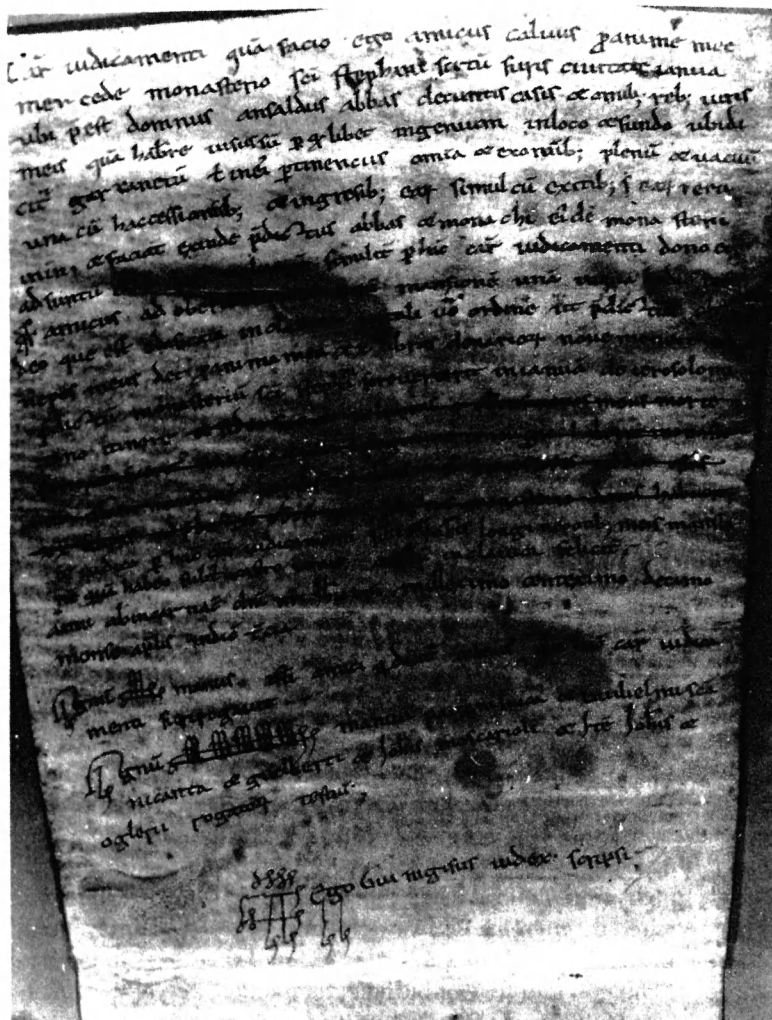
of time before the clock.⁴ A description of business activities in early thirteenth-century Genoa will help to fill this gap by revealing a society in which the demand for precise timekeeping preceded the clock; Genoese merchants, at least, seem always to have been conscious of the old saw that time is money.

On 15 February 1201 the Genoese notary Guglielmo da Sori began a new chapter in the history of exactitude.⁵ For the first time he dated a business contract by adding the hour of the day, in this case "after vespers," to the conventional—and up to that moment sufficiently precise—day, month, and year. Other notaries working in 1201 also supplied the hour of the day, but for no other notary does the exact page of the notarial cartulary that marks the day of this change still exist. In Genoa, where the earliest and largest collection of commercial documents of medieval Europe survive, it quickly became customary for notaries to date all kinds of business transactions by the hour. Merchants from other cities used notaries in Genoa to draw up contracts and hence were familiar with the practice of dating documents down to the hour, yet no other city in Europe developed or copied this procedure. Genoese practices, useful for historians, may simply result from the decision of one notary, whose penchant for detail then influenced his colleagues. This precision in dating—if indeed the hours recorded were reliable—presents an opportunity to study how the Genoese passed their days. Since there are many thousands of business documents dated to the hour, a statistical study should reveal both how the Genoese experienced the business day and the seasonal cycles that characterized business life in the town.

The precise way the Genoese dated their business contracts supplies the data for examining the earliest documented phase of the rise of commercial capitalism. This inquiry helps to explain the precocious economic life of one of the Mediterranean's most vibrant medieval ports. Early capitalism in Genoa brought forth the need for these contracts. It also required the merchants, themselves members of a relatively recent full-time profession, and their investors to order their lives in productive ways. The ebb and flow of business transactions reveal the collective decisions of thousands of ordinary Genoese engaged in types of daily activities that usually escape the historical record. The choices that the Genoese made about what to do with their time and money represent a fundamental departure from the sense of time in the small fishing village and haven of pirates that was Genoa in the early Middle Ages.

⁴ Landes, *Revolution in Time*, 58–66, argues persuasively that an interest in time preceded the invention of the clock.

⁵ Archivio di Stato di Genova (hereafter ASG), Sezione Manoscritti, Manoscritto N. 102, *Diversorum Notariorum*, 174r. The notarial cartulary was a large folio notebook of paper quires into which the notary wrote the business and legal records of Genoese society. At some time in the late twelfth century it became customary for notaries to deposit these cartularies in an archive; hence, some of them have survived the ravages of war and time. This particular cartulary is called a manuscript because it was rebound in order to preserve it.



AN EARLY NOTARIAL DOCUMENT, 1110

This irregular piece of sheepskin parchment contains the last will of Amico Calvo. Dated April 1110, the will is an example of a document from the period just before the notarial cartulary became the routine depository of business records. The document does not give either the date in April or the time of day. (ASG, Abbazia di Santo Stefano, Mazzo I.)

MEASURING TIME

Two features of the system of dating documents in Genoa require an explanation before we take up an examination of the contracts themselves. First, the thirteenth-century Genoese calendar resembled those then in use in the rest of Western Europe, except that Christmas in Genoa doubled as New Year's Day. The second feature, the use of hours to date documents, is not so easily described. Since no one had yet invented a mechanical clock, the methods of determining the hours of the day pose some special problems that merit a closer look.⁶

The medieval day contained twenty-four hours, twelve for the night and twelve for the day, numbered from sunset and dawn. Consequently, the length of these hours depended on the season; during the summer the daytime hour was longer than the nighttime one. Although this system appears impractical, several considerations recommended it. Sunrise and sunset are relatively easy to determine—easier than, say, finding noon, and certainly easier than fixing midnight. The ancient practice of counting hours from the dawn was linked to the idea of having a certain number—twelve—of day and night hours. Herodotus says the Babylonians invented this system, and their base sixty system of mathematics makes them likely candidates.⁷ Instead of the hour's being a fixed unit of time, it was one-twelfth of the sun's time of transit in any given day.

The need to know the time of day in the early Middle Ages was confined to church life. Ancient usage and the rule of St. Benedict had set forth that there should be seven times for prayer, at the seven canonical hours: laud, prime, terce, sext, nones, vespers, and compline.⁸ When secular life began to require a system for telling time, it adopted the canonical hours for its own use. Originally, these hours were easy to understand—lauds, just before or at dawn, then services at the first, third, sixth, and ninth hours, then vespers shortly after sunset, and compline before retiring. In his pioneering work on the medieval hours, the German historian Gustav Bilfinger pointed out that by the central Middle Ages some of these hours had shifted, and there are indications that these hours had already been altered even at the beginning of the

⁶ Lynn Thorndike, "Invention of the Mechanical Clock about 1271 A.D.," *Speculum* 16, no. 2 (April 1941): 242–43, and Landes, *Revolution in Time*, 53–66. An ancient device, the water clock, used the flow of water to measure time by volume, or occasionally the weight of the fluid to power some primitive movement. For a succinct history of this timepiece, see Daniel J. Boorstin, *The Discoverers* (New York, 1983), 30–33. The water clock had a lamentable tendency to freeze in winter. Alfonso X of Castille had such a clock that used mercury instead, a rare innovation entailing both health hazards and expense. See Lynn White, Jr., *Medieval Technology and Social Change* (Oxford, England, 1962), 119–22. I have found no reference to water clocks in Genoa, and so the "clock" referred to here is a purely mechanical clock driven by something other than fluids.

⁷ Herodotus, *The Histories*, trans. Aubrey de Selincourt (Harmondsworth, England, 1982), Book 2: 169.

⁸ Rule of St. Benedict, in J.-P. Migne, *Patrologia Latina* (Paris, 1866), vol. 66, chap. 16 of the Rule, 455: Prayer seven times a day as in Psalms 98.

medieval period.⁹ If the canonical hours did not correspond to their original limits, why did they change, and what did the hours mean? If in medieval Genoa *nones* was no longer the ninth hour, what had it become? Since Bilfinger published his work in 1892, he had to rely on literature and some chronicles as the source materials for his study. The kinds of documents of practice used in this study were not yet edited or commonly consulted.

Bilfinger observed that the name “*sext*” had largely disappeared from the historical record, and that the later “hours” of the day had all moved up a notch in time.¹⁰ *Nones*, originally the ninth hour, was associated with midday (hence our “noon”), *vespers* had moved to the middle of the afternoon, and so forth. The ringing of the bells for these services told the laity what time it was, so the fact that the canonical hours had shifted is important. The reasons why they shifted are complicated. Bilfinger proposed that, since on fast days the clergy was not supposed to eat until *nones*, they moved the service itself up so that they might eat sooner.¹¹ Since the laity was also obliged to fast, particularly during Lent, Bilfinger plausibly explains how changes in ecclesiastical habits eventually influenced the laity. The early evidence from Genoa will permit reexamination of these conclusions.

Calendars supplied the year, month, and day, but not the hour. How did people know what time it was? It has generally been supposed that they usually did not know—or care. After relating an anecdote from 1188 in which a court had to ascertain the time, Marc Bloch concluded that “the imperfection of hourly reckoning was but one of the symptoms, among many others, of a vast indifference to time.”¹² Something had surely happened to this indifference by the fourteenth century, when in Italy and elsewhere in Europe municipal clocks became fashionable and important. The Genoese chronicler Giorgio Stella noted his city’s acquisition of a clock in 1353 as one of the year’s significant events.¹³ Societies do not make sophisticated technological advances and considerable financial investment in areas that fail to stir any interest. Clocks undoubtedly met a pre-existing need.

Before clocks, sundials and the ringing of bells seem to have been the principal methods used to mark the time of day. Monasteries and churches, common enough in Italian cities, carried on a daily routine of religious observance that punctuated city life. The canonical hours

⁹ Gustav Bilfinger, *Die Mittelalterlichen Iloren und die Modernen Stunden* (Stuttgart, 1892), 8–16. Philippe Wolff, in his “Le temps et sa mesure au moyen age,” *Annales: Économies, sociétés, civilisations* 17 (1962): 1141–45, helped to revive interest in Bilfinger’s work and called for more study on hours.

¹⁰ Bilfinger, *Mittelalterlichen Iloren*, 79–83.

¹¹ *Ibid.*, 84–89.

¹² Marc Bloch, *Feudal Society*, trans. L. Manyon (Chicago, Ill., 1961), 74.

¹³ See the annals of Giorgio Stella in Stella, *Annales Genuenses*, ed. Giovanna Petti Balbi (Bologna, 1975), vol. 17, pt. 2, 153. Benjamin Kedar states that the clock did not arrive until 1354; see his *Merchants in Crisis* (New Haven, Conn., 1976), 169.

provided a useful way to divide the time from sunrise to sunset, and, with rare exceptions, the Genoese notaries used them to fix the times of business contracts.

Appealing to these hours does not solve the problem, however, since we must then ask how the clergy knew when these hours were. The simplest way for a Genoese to tell the time was to glance at a sundial, which took advantage of the shadows the sun cast as it crossed the sky. Even in distant Tunis, a Genoese notary, far from his city's churchbells and probably relying on a sundial, was able to note the hour in contracts that he recorded for the Genoese merchants in that Muslim town.¹⁴

THE CONCEPT OF TIME

Time was more than a way to date documents. Even as an abstraction, time does not exist isolated from other thoughts. Hans Meyerhoff has suggested that the concept of time depends on the concept of self. The oldest traditional explanation, one well-suited to this period, is that there is an eternal self distinct from the body, hence an eternity.¹⁵ The Church certainly fostered a belief in eternity, and it seems safe to say that most medieval Genoese accepted this premise. *Sub specie aeternitatis*, there were, again according to Meyerhoff, two ways of apprehending time.¹⁶ One way of looking at time is personal; it is subjective and depends on memory. The way people remember their own pasts fits this view, as does their sense of a collective past. A public time also existed, however, one that sundials and calendars recorded—the weeks, months, and years of a culture's reckoning. This sort of time is rational, scientific; it can be measured and depends on external signs, such as the sun or a date inscribed in stone. People move back and forth, sometimes with great difficulty, between these two modes of perceiving time. Both modes can be measured, but the standards differ. The scientifically measured day is a knowable unit, but a day lived or remembered is highly subjective. The duration of time similarly has two faces—objectively the flow of time is continuous, and yet to individuals this duration is neither experienced nor recalled the same way. Finally, in time things occur in order, and to the extent that people understand this they have some notion of causality.

The Genoese who made business deals that would not bear fruit for months or years obviously viewed time in this more objective way. They

¹⁴ Geo Pistarino, *Notai genovesi in Oltremare: Atti rogati a Tunisi da Pietro Battifoglio* (Genoa, 1986). For more on sundials, see Henry Spencer Spackman, *The Timepiece of Shadows: A History of the Sun Dial* (New York, 1895), 39. On medieval English sundials, see Mrs. Alfred Gatty, *The Book of Sun-Dials* (London, 1900), 49–81. Sundials were fixed on many church towers, but in many cases changing architectural styles or replacement by clocks have effaced all signs of them.

¹⁵ Hans Meyerhoff, *Time in Literature* (Berkeley, Calif., 1955), 29–30.

¹⁶ *Ibid.*, 20–23. This distinction between internal and external time is more useful than Le Goff's church and merchant time.

measured time; they knew how long it would take to sail to Alexandria, trade, and return home as an objective unit of time. They also knew this passage of time as a piece of their lives: on the simplest level, did they have something better to do? Measuring and experiencing time come together here in a practical sense. The business transaction required a feeling for causality as well. If a Genoese wanted to trade in pepper, he could initiate a rather complicated series of steps that might bring in some pepper from the East in the next year, at great profit; alternatively, he could simply buy pepper next door and reward a competitor's labors. The scope and variety of Genoese businesses reveal a sophisticated understanding of the social meaning of time. Personal motives and ideas about how to use time, usually eluding the historian's efforts to extract them, are embedded in every individual transaction.

Walter Ong suggests that the issue of language is important when we examine how any culture thinks and communicates, and language probably affected the Genoese sense of time.¹⁷ Medieval Genoa combined a relatively recent written culture with strong vestiges of older, oral traditions.¹⁸ The notaries of the scribal culture used Latin to record business transactions between parties who undoubtedly spoke an Italian dialect and were unlikely to be able to read their own contracts. The literate members of this society thought about time in a different way because they used written language. The notary was able to look things up in his cartularies; he might go back ten or fifteen years to read a piece of business. The existence of writing consoled the nonliterate members of society; they knew people who could read, and so in a way they could borrow a method of perceiving the past without fully participating in the scribal culture. Legal reasons played a role in the Genoese business community's mania for the written word, but so too did a desire to have a past not dependent on memory alone.

Because language was the business of notaries, it seems likely that they, rather than the contracting parties, were the ones who initiated recording the time in their documents. Why they did so remains to be seen, but the very act of putting time into written words is important, since nonliterate people associated time with sound and sight—the sounds of words and the ringing of bells, the sight of the sun or its shadow. A work contract from 1231 reveals that the weavers worked from “the morning of S. Andrea until the evening according to the custom of the weavers”—that is, by the bells of the church in the wool district.¹⁹ An unknown notary in the same year jotted down, amid his other busi-

¹⁷ Ong, *Orality and Literacy*, 96–98.

¹⁸ For a fine study of this transition in England, see M. T. Clanchy, *From Memory to Written Record: England 1066–1307* (Cambridge, Mass., 1979).

¹⁹ ASC, Cartolari Notarili, Cartolare N. 14, 327r, notary Maestro Salmone: “. . . matutino sancti andree usque sero secundum consuetudinem laneriorum.”

ness, a note on the birth of his son on Wednesday, 23 July, in the evening around the sounding of the last compline. He also recorded that the moon was in Aries and the sun in Cancer, and at what degrees.²⁰ Although notaries had a sense of external time that nonliterate people did not share, their written words nevertheless preserve signs of both sight and sound.

THE TIMING OF BUSINESS CONTRACTS

This study is based on 3,902 notarial acts that the notaries Oberto Scriba de Mercato, Giovanni di Guiberto, and Lanfranco wrote in 1201, 1203, 1205, 1206, 1207, 1210, and 1213.²¹ These notarial acts are legal records of the wide range of private and public business in which the Genoese engaged and which they found necessary to commit to writing. Virtually any sort of human activity found its way into the Genoese notarial record. The categories and frequencies of business display the variety of contracts, and they also enable us to look closely at the timing of the agreements. It is possible to distinguish twenty-two broad categories of business, which are arranged in order of frequency in Table 1.

"Business" is a somewhat loose term to describe this collection of activities, but business, in a commercial sense, clearly predominates. The two principal forms of partnership, the *commenda*, in which one partner contributed all the capital, and the *societas*, in which all parties invested, account for about 30 percent of the total, and loans and sales of commodities and land amounted to 26 and 16 percent, respectively.²² These five basic activities made up 72 percent of the sample. A dowry contract was also a business matter, but it differed from other forms of investment. The dowry agreements are the most numerous of what we might call personal business; wills are another example. Although they account for only a tiny percentage of the total business, the communal acts, basically court decisions, are important because they are virtually the only kind of public business included in the cartularies, and they also reveal when during the day the court sat. For the purposes of this study, we will confine the categories to the five types of business—commendas, societas, loans, land sales, and commodity sales—and use

²⁰ A.S.G., Notai Ignoti, Busta I, Anni 1180–1245, fascie XXXVIII. "die mercurio XXIII iulii in sero circa pulsationem ultime campane natus est filius _____ luna erat in aries gradu XXVII et sol erat in cancro gradu XXVII." The notary left a blank for the name of his son; the last compline refers to the last church to ring its bells for that hour.

²¹ These 3,902 acts come from the following sources: Margaret W. Hall-Cole, Hilmar C. Krueger, Ruth G. Renet, and Robert L. Reynolds, *Giovanni di Guiberto* (Turin, 1939)—1,811 acts; Hilmar C. Krueger and Robert L. Reynolds, *Lanfranco* (Genoa, 1951–53)—907 acts; and A.S.G., Cartolari Notarili, Cartolare N. 4, Oberto Scriba de Mercato—1,184 acts.

²² On the significance of the *commenda* and *societas* contracts, see Robert S. Lopez, *The Commercial Revolution of the Middle Ages* (New York, 1976), 75–79.

TABLE 1
Frequencies of Genoese Business, 1201-1213

TYPE OF BUSINESS	NUMBER	PERCENT OF TOTAL
Commenda	1,102	28.2
Commodity Sale	664	17.0
Loan or Exchange	610	15.6
Land Sale	354	9.1
Quitclaim	252	6.4
Dowry Contract	239	6.1
Promise to Pay	142	3.6
Societas	121	3.1
Rental Agreement	67	1.7
Will	65	1.7
Cede Rights	52	1.3
Donation	36	0.9
Communal Acts	31	0.8
Arbitration	23	0.6
Work Contract	22	0.6
Payment	20	0.5
Appointment of an Agent	20	0.5
Apprenticeship	19	0.5
Slave Emancipation	12	0.3
Property Division	11	0.3
Inventory	3	0.1
Miscellaneous	37	0.9

Source: Giovanni di Guiberto, Lanfranco, Oberto Scriba de Mercato

the personal business—dowries and wills—and the public court matters as comparative cases to put the business cycles in perspective.

The frequencies of business are not the same for each of the three notaries, a circumstance that highlights the advantages of the extended sample. Giovanni di Guiberto and Lanfranco both wrote more commendas than anything else, but Giovanni's made up fully 38.7 percent of all his acts, whereas Lanfranco's were only 19.1 percent of his. Oberto Scriba wrote more loans than commendas. Each notary had his own working habits, different words for describing time, and distinctive daily routine. They had different clienteles, and over the years they built up relationships with certain people and had favorite places to find work. Since they were paid for each act they wrote into their cartularies, notaries were in the business of soliciting business. Each developed idiosyncrasies. Giovanni di Guiberto was a very busy commercial notary, and some of the wealthiest people in Genoa took their affairs to him. Oberto Scriba had a few important clients, but he did most of his work for the artisan classes. He wrote many more dowry contracts than did the other two notaries, possibly because his humbler customers did not engage

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A PAGE FROM A NOTARIAL CARTULARY

This page contains four notarial acts dated 20-23 October 1200, just before the notary Guglielmo da Sori began to include the time of day. The four acts here are a will, a quitclaim for a dowry, an acknowledgement of a debt, and another quitclaim. (ASG, Sezione Manoscritti, Manoscritto N. 102, folio 167 recto.)

in great commercial ventures but still wanted to record their marriages. Lanfranco was not a particularly busy notary, and he was professionally somewhere between the other two—his clientele and his range of business were mixed. The contracts of these three notaries together provide a comprehensive cross-section of Genoese business in the early thirteenth century.

The surviving sources do not suffice for a useful analysis of business by the year, but increasingly smaller units of time, the month, week, and day, do permit us to look at the hours in context. Because of the random way in which some of the Genoese notarial cartularies survived, the months are not evenly represented in this sample. No work done by Giovanni di Guiberto in January or February exists and, because of breaks in the manuscripts, some of the other months are also under-represented, principally November and December. It is evident from other cartularies, however, that these four months were certainly the slowest business months in the year. Consequently their absence from the record may not result solely from chance; even notaries may have taken a rest. With the proviso that the numbers for the first and last two months of the year are too low, Table 2 presents a breakdown of the most important business by month and reveals some interesting features of the yearly cycle. As expected, business peaked in May and September, the principal sailing months, and clearly the commenda contracts account for this. The tempo of trade picked up in March, reached a high point in May, tapered off in July and August—when many sensible Genoese headed for the cooler hills—and rose sharply again in September, when the great voyages to the East departed. By December trade dwindled to nothing. In a less dramatic way, loans followed the pattern set by commendas. There were many reasons to borrow money besides trade, however, and the loans were more evenly distributed throughout the year. Still, loans peaked in May and September, again indicating that trade was the greatest consumer of credit. All the evidence supports the conclusion that the commenda contract was the backbone of Genoese commerce in the early thirteenth century.

In contrast, the land market exhibited more constancy throughout the year. Land sales attained their largest percentage of business in January and February; in other months, they fluctuated from 5 to 15 percent of all business. Most of the land sales involved agricultural properties in the countryside, although some urban lots also changed hands. The rugged terrain around Genoa provided little fertile land and that only in small plots. Commercial life in the city could not depend on any substantial flow of capital from local agriculture.²³ So there was no

²³ See Robert S. Lopez, "Aux origines du capitalisme génois," *Annales d'histoire économique et sociale* 9 (1937): 429–54, for comments on the peculiar nature of economic growth in Genoa.

TABLE 2
Genoese Business, 1201-1213, by Month

	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
All Business	106	98	411	412	652	478	295	340	727	204	130	49
Commenda	1	8	132	91	175	103	26	60	389	70	26	1
Land Sales	23	21	40	59	57	41	31	30	24	11	10	7
Loans	7	11	54	67	108	81	55	69	88	45	20	5
Dowries	18	19	27	26	31	23	21	16	30	8	13	8

Source: Giovanni di Guiberto, Lanfranco, Oberto Scriba de Mercato.

great rush of land sales to raise money for commerce; nor does there seem to have been any great effort to invest the fruits of trade in land. The stronger land market in the dead of winter may result from owners' need to raise cash, or perhaps the land sales were deliberately timed to occur when the agricultural land yielded no income.

The distribution of the dowry contracts reveals an admirable constancy in Genoese attitudes toward marriage. Not all of these contracts were drawn up before the marriage, however; in some cases the couples committed the dowry to writing years later. Allowing for the underrepresentation of the winter months, we see a roughly similar number of marriages planned throughout the year, except in August, when many wealthy people were out of town. The dowry agreements reached a small peak in May and September, but whether this had more to do with successful business transactions or the pleasantness of these months in Genoa is unclear.

The Genoese conception of the week is somewhat ambiguous. Ideally, the week was simply the time between Sundays. The Church certainly followed weekly patterns and tried to encourage the laity to participate in religious observance. The days covered in the notarial documents can help to determine whether merchants worked on Sunday. The records of the three notaries examined in this study do not frequently coincide, but this is one of the principal problems with the surviving source material in general. Fortunately, however, from Saturday, 19 May 1201, to Friday, 17 August 1201, the notaries Giovanni di Guiberto and Oberto Scriba were both working in the city.²⁴ Between these two dates were thirteen Sundays, one of which was the important feast of San Giovanni on 24 June. Giovanni di Guiberto worked on five of these Sundays, as did Oberto Scriba. Neither worked on 24 June or on the festival of Corpus Christi, which fell on Thursday, 24 May. Sunday was the day that people were least likely to work at those labors that required a notary's presence. Whether people who labored at a craft also rested on Sunday is, in the absence of any contemporary Genoese comment, impossible to know.²⁵ That the work of buying and selling considerably diminished on Sunday constituted at least a partial victory for the Church. Apart from Sundays, the notaries' work habits seem to have been almost random. The notaries worked at their own pace, but they did not take off more than two consecutive days. The busiest single day was Tuesday; Oberto worked every one, Giovanni all but one. The other days of the week, including Saturday, did not fall far behind Tuesday

²⁴ The computer program for calculating the days of the week must be for the Julian calendar.

²⁵ For example, the statutes of the tailor's guild in Bologna state that the tailors should not work on Sunday. Augusto Gaudenzi, *Statuti delle società del popolo di Bologna*, vol. 2: *Società delle arti* (Rome, 1896), 279-90.

in being working days. E. P. Thompson's "Saint Monday" may be a custom as old as the work week.²⁶

The notaries usually ignored the day of the week when they dated a document. Of the 3,902 acts considered here, only one, dated Sunday, 19 August 1201, noted the day of the week.²⁷ This particular act recorded the conversion of a Tunisian to Christianity, and hence the day assumed a special significance. Amid so much exact dating, the omission of the day of the week is at first glance puzzling. The one piece of information about the date that many people were likely to know is absent, yet the year, month, date, and hour were noted. There may be nothing at work other than convention; perhaps it was simply customary to omit the day. The working habits of the two notaries suggest that, except for Sunday, the days of the week were in a business sense indistinguishable from each other. Social customs, such as eating fish on Friday, were more likely than business practices to give a day a distinctive tone. In a loan agreement, for example, the date, say 1 May, might be crucial because the repayment was usually fixed at some number of months or at a certain date in the future, but the day of the week was not relevant. The date on a will established which last will and testament was in fact the last. It would be easy to multiply good reasons for recording dates, and in every such example the date matters and the day of the week does not. The law and notarial routine clearly regarded the day of the week as not part of the practice of dating. This circumstance lends even more interest to the notaries' exactitude in including the hour.

CONTRACTS DOWN TO THE HOUR

Before analyzing the recording of the hour on contracts, we should set forth as exactly as possible the timing of these hours. Since the hours depended on sunrise as the day's starting point, the length of the hours changed with the seasons. When municipal clocks appeared, they made this system of counting hours increasingly impractical, and it was soon abandoned. Table 3, adapted from Bilfinger with some changes, summarizes the canonical hours according to the practices of Genoese notaries.²⁸ Several important developments had substantially altered the "classical" hours. Some local monasteries may have celebrated laud, but no Genoese document ever mentioned it. The first hour, prime, thus became "around sunrise." Sext, once the sixth hour or midday, has disappeared; not one of the thousands of Genoese documents ever named

²⁶ Thompson, "Time, Work-Discipline, and Industrial Capitalism," 75.

²⁷ Hall-Cole, et al., *Giovanni di Guiberto*, document number 412: 197-98.

²⁸ Bilfinger, *Mittelalterlichen Iloren*, 16, with some minor changes. Umberto Eco produces a similar table at the beginning of his novel, *The Name of the Rose*.

TABLE 3

The Medieval Canonical Hours

Prime	Around the beginning of the day, first hour
Terce	Middle of the morning
Nones	Midday
Vespers	Middle of the afternoon
Compline	Around the end of the day
(Evening)	First few hours after sunset
(Night)	After normal bedtime

it. Nones has become midday, and the subsequent hours all moved up a notch. The disappearance of sext was so complete that the time "between terce and nones" was almost always used to describe the second half of the morning. With laud and sext eliminated, there are, for our purposes, five canonical "hours." I have categorized twenty-nine different ways used by the three notaries to give the hours from before dawn to the middle of the night. For example, the period from prime to terce was recorded variously as prime, after prime, between prime and terce, before terce, around terce, and terce. The notaries' system allows for some precision. In fact, even more than twenty-nine times were in use; some notaries would write, for example, "a little after Terce," but in the analysis that follows, I have added this time to the simple "after terce" category. This way of reckoning time embodied a certain uniformity: no matter what the season—regardless of the position of the sun in the sky—vespers was always at the middle of the afternoon.

In order to look at time and business usefully, some of the twenty-nine ways to describe the time must be consolidated. Taking dawn, noon, and sunset as the three principal dividers of the day, we will further divide the morning and the afternoon into quarters, which by modern reckoning amount to about an hour and a quarter each. Table 4 presents all business in Genoa according to this plan, revealing the basic daily pattern. The business day began after prime, after dawn, and only a minuscule amount of the city's business was transacted before that hour, probably because it was difficult to locate witnesses. The first quarter of the morning was comparatively quiet. The rest of the morning, from before terce to just before midday, witnessed the peak business hours of the day, with a steadily increasing volume of activity. Around nones, the pace slackened, though business did not cease entirely.

Looking at this hour more closely is instructive. More business was recorded precisely at midday than at any other hour. The real period of commercial calm seems to have been after midday, with business activity resuming in the early afternoon. Most of the business that transpired in the first half of the afternoon occurred closer to vespers than

TABLE 4

Genoese Business by Time of Day, 1201-1213—Totals

Before Day—Around Prime	25
Prime—Between Prime and Terce	124
Before Terce—Terce	862
After Terce—Between Terce and Nones	1,082
Before Nones—Nones	395
After Nones—Between Nones and Vespers	721
Before Vespers—Vespers	323
After Vespers—Between Vespers and Compline	239
Before Compline—Compline	28
After Compline—Night	103

Source: Giovanni di Guiberto, Lanfranco, Oberto Scriba de Mercato.

to nones. After this burst of activity, the pace of business abated from around vespers. These data conform to the observation of a late thirteenth-century anonymous poet of Genoa: "one ought not to praise the day until after vespers, for the end is still the judge of all work."²⁹ Around compline, or sunset, business virtually stopped, but in the early evening hours there was a return to a low level of activity, not significant but nevertheless greater than the degree of activity before dawn. Business conducted in the evening took place in the first three hours after sunset. The notaries recorded only a few random acts, usually wills, late at night—in the nine hours (by their reckoning) before dawn. The daily pattern of business thus may be summarized as follows: a very busy morning, a break after noon, a return to activity less brisk than the morning pace, a break around sunset, some work in the early evening.

The Genoese seem to have awakened around dawn, and they spent the first hour or so of the day at home eating breakfast. There was another meal after midday and presumably also the short rest so characteristic of Mediterranean societies. The Genoese ate their third meal of the day around sunset, and, at least according to the figures presented here, this may have been the principal meal. Table 4 offers no support for the idea that the merchant and artisan classes took a morning break around terce; for them, this was the busiest time of the day. The poor probably had adventitious eating habits, not regulated by any social custom, and some variety in eating times might be expected. The evidence presented here strongly suggests that the two principal breaks in daily activity were just after nones and around sunset.

²⁹ Luciana Cocito, *Anonimo Genovese: Poesie* (Rome, 1970), 308. The poem is in Genoese, a far cry from Tuscan:

Lo dì no è da fir loao
se no de poi vespo passao
che la fin si è tuto-or
zuxe de ogni lavor.

The category "all business" includes many disparate elements, most of which are not numerous enough to establish a daily rhythm. The types of business we will examine in detail have been previously identified: the commenda, commodity sale, loan, land sale, dowry contract, will, and court session. Table 5 displays the frequency of each type of business by the hour of the day. The court sessions fix part of the day very clearly. No court sat in the early morning hours, and the majority of court proceedings occurred in the late morning. The break around noon was absolute. In the early afternoon the courts were again sitting, but not for very long, and by mid-afternoon the legal machinery had ceased its labor for the day. The legal day seems to be a durable concept.

The commenda investments and loans characterize the mercantile and banking day. The commenda contracts were the most common, and in terms of time the most ubiquitous kind of business in the city. The late morning hours, the peak of business activity, saw the greatest concentration of these agreements. In the afternoon, commendas accounted for a larger percentage of total business than they had in the morning, and after sunset these contracts made up more than half of the city's recorded business. Most of these "evening commendas" were concluded at the partners' homes rather than at the conventional public places for such matters. The commenda contract was the lifeblood of the city's commerce in this period. Joint ventures, for example the *societas*, were far less common than the practice of one partner's committing goods or cash to another who did the traveling. Seasonal rhythms were more important in the decision to invest than daily ones; the Genoese were likely to strike up partnerships at almost any hour.

The loans conform to the pattern the commenda contracts set, except in the evening hours, when few people made loans.³⁰ Even though most loans were clearly related to commercial ventures, people borrowed money for a variety of other reasons, some strictly personal and not related to business. Loans were most often made in public places where merchants congregated during the day. The table where money and credit were lent or exchanged, the *banca*, which in this period was indeed a nascent bank, may very well have closed around sunset. A few personal loans were made at night, in private homes, but by then public business borrowing had ceased.

Commodity and land sales differed from one another. Commodity sales, always at the wholesale level and in Genoa most commonly cloth, generally followed the same patterns as commenda contracts and loans. This is not surprising, because many of the same people engaged in both types of endeavors. Also, many of the commenda investments were made

³⁰ Elisabeth Pavan has examined the night as a time of violence; see "Recherches sur la nuit vénitienne à la fin du moyen âge," *Journal of Medieval History* 7, no. 4 (1981): 339–56. A fear of crime, not unique to Venice, helps to explain the hesitancy about cash transactions at night.

TABLE 5
Types of Business and the Time of Day
Genoa, 1201-1213

Types of Business	Before Day Between P & T		Before T Terce		After Terce Between T & N		Before N Nones		After N Between N & V		Before V Vespers		After V Between V & C		Before C Night	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
All Business (3,902)	149	3.8	862	22.1	1,082	27.7	395	10.1	721	18.5	323	8.3	239	6.1	131	3.4
Commenda (1,102)	35	3.2	229	20.8	242	22.0	119	10.8	214	19.4	95	8.6	100	9.1	68	6.2
Commodity Sale (664)	27	4.1	121	18.2	169	25.5	90	13.6	138	20.8	75	11.3	24	3.6	20	3.0
Loan (610)	38	6.2	127	20.8	156	25.6	67	11.0	129	21.1	62	10.2	34	5.6	7	1.1
Land Sale (354)	9	2.5	128	36.2	121	34.2	23	6.5	50	14.1	11	3.1	10	2.8	2	0.1
Dowry (239)	8	3.3	57	23.8	100	41.8	15	6.3	27	11.3	15	6.3	11	4.6	6	2.5
Will (65)	1	1.5	19	29.2	12	18.5	4	6.2	16	24.6	5	7.7	5	7.7	3	4.6
Court Session (31)	0	0.0	7	22.6	16	51.6	0	0.0	7	22.6	1	3.2	0	0.0	0	0.0

P = Prime; T = Terce; N = Nones; V = Vespers; C = Compline
Source: Giovanni di Guiberto, Lanfranco, Oberto Scriba de Mercato

in commodities rather than in cash, and the most important Genoese export was probably cloth. Land sales were different for a variety of reasons. Most of the land sales involved agricultural properties in the countryside; city lots were not frequently sold. Even though money may not have changed hands immediately, since some buyers were short of cash, land sales were the business transactions most likely to involve cash. The motive of a particular seller usually remains obscure, but overall a need for cash predominated.

Why anyone needed money at a specific time is hard to know; was there a connection to commerce—that is, were people selling land in order to raise merchant capital? A complete answer to this question would require a separate study. The question asks itself, however, because of the way land sales, in contrast to other business, were concentrated in the morning hours. The land market revived a little after the midday break, but 75 percent of all the land sales had already been finalized by that time, whereas only slightly more than half of the commenda contracts had been made by then. After the early afternoon, the pace of land sales fell off more sharply than that of other kinds of business. The concentration of land sales in the morning hours might argue in favor of their being connected to commerce. Here the different perspectives of buyer and seller must be considered. Whether the fruits of commerce were being invested in land or rural proprietors were trying to raise capital for commerce or land improvements, or perhaps even a happy union of both aims, may be determined only in specific cases. Regardless of motive, in most land sales and in dowry contracts cash changed hands, and there seems to have been some preference for doing such business in the morning hours. In many land sales payment was deferred or scheduled, but usually some part of the purchase price was paid immediately. A much smaller category of business, rental agreements, also followed this morning preference (46 to 21). Although this tendency to transact certain kinds of business in the morning was by no means absolute, the morning activity in the land market is consistent with the idea that some sort of rudimentary banking system also functioned before noon, offering a convenient place to acquire cash or to keep it safe.

The morning hours also witnessed the heaviest concentration of dowry agreements. Following the same pattern as land sales, 75 percent of the dowry contracts were made before the midday break. The striking feature here is that personal, family matters intruded into the peak business hours of the day. We know that notarial activity resumed after midday, but some types of business never rebounded to anything approaching their morning levels. Dowry agreements might have taken up the afternoon slack—why bother to do something in the hectic second half of the morning that might easily be postponed a few hours?

Several practical considerations may have made it desirable, or even necessary, for dowries to be bound up with other business. Some of the dowry contracts are quite detailed, containing a schedule of payments that the bride's father promised to make, payments that amount to an installment plan. A separate agreement, a promise to pay, often directly followed the dowry contract in the cartularies, usually indicating that some partial payment was made on the spot. It is difficult to know the exact form these dowry payments took, since the contracts were notoriously vague on this subject. It seems likely that cash and land were the most important and acceptable means to pay a dowry. Naturally the amount of payment depended on social status; some dowries were very modest and easily paid in cash or even clothes. Since most of the time some wealth changed hands, however, the concentration of dowries in the morning hours may be explained in the same way as land sales: it was easier to raise cash then.

There is also a social dimension to marriage that helps to explain why it was so easily intertwined with other forms of business. Studies of the urban family in the fourteenth and fifteenth centuries, for which more comprehensive source material exists, have revealed a strong tendency to marry within the neighborhood, craft, or business.³¹ Marriage contracts were made between prospective in-laws, and the first requirement was that these people had somehow met each other. The marketplace, in addition to its expected functions, was probably a good place to look for a son- or daughter-in-law. People who did business together were in the best position to weigh the practical benefits of a union between two families. Finally, like other forms of business, a promise to marry was a public act that required suitable witnesses. About 77 percent of the dowry agreements were made in a public area, not in a party's home. The most convenient public place was the market or a shop, and the best time for the parties to meet in public was in the morning.

The timing of business does depend on where people come together. Every notarial act carefully named the place where the agreement was made, and each notary had his favorite place to do business: Giovanni di Guiberto at the warehouse of the Pediculi, Oberto Scriba at the arcade of the Fornari. These were public spots—marketplaces that saw a wide range of business not connected to the Pediculi or Fornari families. When all the notarial acts in this sample are divided into two classes, those made in a public spot and those drawn up in the home of one of the parties, we can see that about four-fifths of all business was conducted in public places, where parties came together to find a notary and conclude agreements. To some extent, the availability of notaries determined the place of business, since the public nature of Genoese commerce,

³¹ See Samuel K. Cohn, *The Laboring Classes in Renaissance Florence* (New York, 1980), 117–23, for marriage patterns among the artisans of Florence.

requiring witnesses and written documents, made the notary's involvement crucial. Genoese notaries were too efficient to go from house to house looking for business; instead, they usually waited for customers to come to them.

There are several nuances, and one great exception, to this general pattern. Wills, in contrast to all the other forms of notarial documents, were likely to be made at the testator's home. Since most Genoese were ill or actually dying when they made wills, the summoning of a notary to the home is not hard to understand; this was practically the only summons that a notary would interrupt other work to obey.³² The dowry contracts were, as we have already observed, basically public acts. Commodity sales, loans, and land sales were all mainly marketplace activities, but the commendas were slightly more likely to be made at home. These agreements contracted at home were also those concluded during the early evening hours. Certain prominent families were responsible for the evening business transactions, in which they committed large amounts of capital in an occasionally bewildering series of partnerships. The very infrequency of these evening commenda contracts highlights the public nature of most Genoese business and also suggests that at times the contracting parties found the traditional public transaction of business undesirable.

CONCLUSION

We have seen how the Genoese used time, but what have they revealed about themselves and their work? They used time rationally, to make money, and they developed a sense of planning that appreciated the interval between conceiving a venture and profiting from it. Whatever internal sense of time the Genoese had, they began to conform their business practices to an external standard that required them to think about time in a numerical way. As the notaries used hours to date both documents and the business described therein, a new system of reckoning time drew the Genoese in and served to remind the parties and the witnesses where they were at specific moments of the day. Thousands of contracts dated to the hour cast no light on the private and internal sense of time, but they constitute a new fact about external time. The hours reveal that the business day in Genoa was starting to have a distinctive shape even at the very beginning of the new practice in 1201. The Genoese sense of time was visual and aural, depending on the calendar, sundials, and bells, but now words too began to mark the passage of time. The marketplace rewarded those who understood numbers and letters, because valid documents provided some legal security in an uncertain world.

³² Steven Epstein, *Wills and Wealth in Medieval Genoa, 1150-1250* (Cambridge, Mass., 1984), 49-50.

Certain conditions beyond Genoese control, such as the amount of daylight, the weather, and the existence of overseas markets, influenced the pace of the city's economic life. The highly seasonal quality of some Genoese business affected great merchants and dockworkers alike; the year witnessed some months of hectic activity and others of glacial calm. The Genoese worked six days a week and seem to have honored Sunday. The work of commerce varied with the season, but the land market, planning marriages, baking bread, and emptying the vats of urine for the fullers were fairly constant daily activities. In this heroic age of the merchant, when the commenda was the prime investment tool and travel abroad demanded an intrepid spirit, commerce was a risky business requiring high levels of personal trust and self-confidence. Thus the commercial rhythms permeated city life. The commercial life, rewarding an ability to envision the future business climate, and foreign ones as well, broke up the routine of life and even brought some Genoese back to work after supper.³³ Those Genoese who were eager for economic success learned that patience and planning were the temporal aspects of ambition.

More than a century before the invention of the clock, the Genoese reckoned time by the hour and had a sophisticated system for noting the divisions of the day. The Genoese did not earn wages by the hour, so their exactitude in this regard appears puzzling. Perhaps the notaries simply had a mania for detail, or they used the hours as one more way to jog the memories of witnesses. Legal tangles may have prompted the notaries to develop a method for sorting out contracts and sales made on the same day. Whatever the practical cause, the Genoese interest in hours reveals a widespread preoccupation with time and its passage. The business life of the town in the early thirteenth century had already developed seasonal and even daily rhythms. The Genoese had no ready model for organizing the commercial life of their town, and for them the time of day assumed a remarkable and unique importance. A day in Genoa lacked the discipline of the factory and the hourly wage, but it mattered that people tended to sell land and arrange their marriages in the morning, whereas they made commenda contracts as they bumped into each other on the street. Commerce changed the way people thought about time, and about themselves. If merchants could imagine themselves buying pepper in Alexandria six months in the future, or keeping an appointment on the steps of the cathedral at terce, they were no longer indifferent to time; they were instead making the first tentative steps toward mastering it.

³³ Alexander Murray, *Reason and Society in the Middle Ages* (Oxford, England, 1978), 105–7, discusses the important connection between time and ambition.